SREB

Transitional Course Project: *Guidelines for Participating State Pilot Sites*

Memorandum of Understanding for Participating Schools

SREB is very pleased with the progress of the College and Career Readiness Transitional Course Project, to the credit of the current 14 partner states. Key education agency personnel (as well as a team of highly effective, hardworking teachers and faculty in the core disciplines from K-12 and higher education from each of these states) have worked for two years to develop and review drafts of a model curriculum for two senior-year transitional courses — in mathematics and disciplinary literacy. With the help of these team members from the states, we are now ready to enter the next phase of the project: pilot-testing of the courses in schools during the 2013-2014 academic year.

Purpose

The purpose of the pilot phase of this project is to find out if the draft module materials and curriculum are in line with the overall mission of the transitional course project: to help high school juniors who are assessed as "not ready for college" to become prepared during their senior year, so they may enter first-year, credit-bearing courses in college. The pilots also should provide information on the kind of teachers who should teach these courses in the coming years, as well as test a model for effective teacher training for these college-readiness courses, which was initially provided in July 2013 and will continue online throughout the year.

SREB plans to publish the final curriculum and teacher training materials for all states to use in full implementation or further state pilots by October 2013. Pilot states who will begin testing the curriculum in August will receive weekly teacher and student curriculum documents in draft form until the final documents are published.

Expectations

SREB expects to hold pilot testing of the disciplinary literacy transitional course and mathematics transitional course in multiple school sites in at least seven states over the course of the school year, with each site testing the full courses OR specific modules from the courses if time does not allow to pilot the full course. . Pilot sites do not have to test both courses in order to participate. Participating sites should:

1. be willing to participate and find time in the fall and/or spring semester to test the courses OR incorporate the modules into the existing course curriculum in a related course: Algebra I/II, biology, English, or history/government
2. commit the sites' highly effective teachers to pilot the modules — preferably teachers who have experience with teaching to college-readiness levels
3. guarantee the participation of the sites' principals in assisting teachers and helping evaluate each course's effectiveness.
4. guarantee the participation of at least one representative from the state K-12 education agency to provide oversight to the state's field-testing site(s) and assist SREB in the module evaluation process in the spring
5. participate in monthly webinars with SREB staff and consultants for technical assistance with curriculum and teacher training, and

6. require pilot teachers to electronically submit written weekly notes of class and course progress, obstacles, challenges, etc., and submit student surveys on their experiences during this pilot to SREB and to the state department of education.

SREB hopes that our partner states will plan to implement the courses statewide the following school year if the infrastructure and policy is in place, *or* begin larger or statewide pilots of the courses in 2014-2015. We hope that these pilots will help perfect the curriculum of the modules and, ultimately, shape better courses for a "second edition" rollout during a follow up grant. With wide-spread participation and the assistance of motivated, hardworking teachers and principals, we can use this pilot to learn many lessons in the effectiveness of the course design.

School Site and Teacher Selection

SREB hopes to have five or six states participate in the pilot, selecting one or more high schools to test the courses in each state.

If schools wish to pilot modules in existing courses, we recommend certain classes. There are eight math modules. These modules will need to be tested in senior-year math courses or in Algebra I or II. There are six disciplinary literacy modules: two in history, two in English and two in science. The subject modules should be tested in senior-year English, 10th-grade biology (or junior- or senior-year biology, if available) and junior-year United States history/civics or senior government classes. The participating schools should have teachers with experience in teaching college-readiness classes or skills who are willing to teach the target audience — students who are not testing at college-ready levels and likely would need developmental education courses in college. Experience in Literacy Design Collaborative or Math Design Collaborative (LDC/MDC) is also an added benefit, as these skills and strategies will be used in the transitional courses.

Expectations for Participating Principals and Teachers

Each participating school will need to assign a principal or assistant principal who will oversee the work in the school, support the teachers and assist with reporting and data collection. Participating teachers will be expected to pilot the courses or pilot certain modules in one of their classes, attend monthly webinars, submit teacher notes, teacher lesson surveys, student results from in-course assessments and an end-of-course student survey.

Math and disciplinary literacy teachers at the selected sites/schools should exhibit certain characteristics, such as:

1. voluntarily wish to participate in this project
2. have been identified as effective teachers
3. have experience in teaching the target students
4. have been identified as somewhat successful in teaching underprepared juniors or seniors
5. display evidence of concern for students who are not college-ready
6. have an open mind to new teaching styles and delivery modes
7. are willing to teach select modules within their course syllabus
8. preferably, have experience or an introduction to LDC/MDC strategies
9. preferably, are able to attend SREB's teacher training workshop in summer 2013 as a state trainer (with state department consent)(preferred but not required), and
10. understand the importance and need of teaching disciplinary literacy in their subject and wish to pilot the corresponding modules in their subject (for social science and science teachers).

SREB plans to publish the final curriculum and teacher materials for all states to use in full implementation or further state-approved pilots by October 2013. Pilot states that will begin testing the curriculum in August 2013 will receive weekly teacher and student curriculum documents in draft form until the final documents are published. Teachers will need to be flexible and work with SREB to receive these documents on a weekly basis until October 2013.

If the pilot site wishes to test out the modules in existing courses rather than testing the transitional courses as a full, yearlong or semester-long course, then teachers of the modules will be expected to embed the unit/module material into their existing classes at the most appropriate time. While the curriculum may not match exactly, there are positive benefits to employing the new teaching styles with the students. The goal of the curriculum and teaching methods used in these modules should add value to the classroom, even if the curriculum doesn't align with the original syllabus of the class. The modules are designed to help the underprepared student work up to the level of reading and writing, or math skills needed in college.

During and after the pilot, teachers will be asked to report on:

- the progress of the pilot
- the effectiveness of the course materials
- the effectiveness of the training materials and support
- the appropriateness of the rigor of the modules and texts
- student impressions of the curriculum
- student assessment results, and
- student engagement and motivation.

Note: All student feedback will need to be void of personal identifiers, and each student will need to be assigned an arbitrary number for correlation of data only.

Unit/Module Descriptions

The transitional course in disciplinary literacy consists of six units or modules — two in English, two in science (biology) and two in social science. The math transitional course consists of seven required units or modules in math skills, starting with some eighth- and ninth-grade concepts (through Algebra II) and one optional unit in statistics. Schools are asked to pilot full courses OR certain units in the literacy disciplines or math course.

The units are designed off of the Readiness Anchor standards of the Common Core State Standards, with innovative instructional styles, conceptual learning and rigorous curriculum. The literacy courses are designed to be used as steppingstones, with the first module in each subject less rigorous and demanding than the last module in that subject. The end goal is for students to be reading at writing at college levels. The math modules are built around the eight Standards for Mathematical Practice, identified in collaboration with college faculty as the skills needed to succeed in college-level math courses.

The following gives a brief description of the six disciplinary literacy units and the eight math units:

Disciplinary Literacy Transitional Course —

Social Science *(U.S. history or government):* The units are unified by the topic of "concepts of liberty and freedom."
Unit/Module 1:

The first unit focuses on the Civil Rights Movement and the changes that took place over the period of the 1960s. Students draw information from a textbook chapter, a film, a lecture, and a number of primary source documents as they learn to read history, to recognize implicit and explicit claims and evidence, to write a historical account and to form arguments.

Unit/Module 2:

The second unit focuses on U.S. involvement in foreign affairs: The Cuban Missile Crisis, the Vietnam War and the Six-Day War. In this unit, students read multiple texts as well, but there is more emphasis on writing historical arguments on the basis of their reading.

***Science** (biology):*

Unit/Module 1: Nutrition

In this unit, students are introduced to disciplinary literacy in the sciences. Students learn strategies for reading multiple types of text, including science textbooks, research articles and news articles. They also learn a variety of ways to write about science — from personal reflection to public consumption — and to comprehend science information in multiple representations, including animations, diagrams, charts and tables.

Unit/Module 2: DNA

In this unit, students extend their understanding of reading and writing in the sciences. Students read research articles and textbook material, take notes from lecture videos and make predictions using scientific models. The text material in this second science module is more complex in both content and composition than the material from Module 1. Additionally, students are asked to write in more depth as they prepare and present an evidence-based scientific poster in a research symposium.

***English** (fourth-year or senior English):* Both units are designed to address the following essential question: "How is the exponential increase of information that we process in all forms of media affecting the way we live?"

Unit/Module 1:

The first unit involves students in reading informational text from the Nicholas Carr book *The Shallows: What the Internet is Doing to Our Brains*, as well as a number of related supplemental texts. Students practice the following reading skills with an English disciplinary focus: literary epistemology; reading for argument, claim, and evidence; reading for rhetorical strategies and patterns; and reading for internal and external connections. The conclusion of the unit involves students in collecting evidence for a stance-based synthesis presentation on a topic drawn from the central text. Students use the feedback received from peers and from the teacher to revise their synthesis and submit a synthesis essay.

Unit/Module 2:

The second unit moves into literary study, with the central text *Ubik* by Philip K. Dick. In this unit, students read the central text and a variety of related supplemental texts. They practice the following reading skills with an English disciplinary focus: literary epistemology; close reading; inference; interpretation of rhetorical strategies and patterns; and reading for internal and external connections. The conclusion of the unit involves students in collecting and presenting evidence for a literary argument essay on one of three topics related to the central text. With a draft of the literary argument in hand, students participate in a debate related to a common question drawn from the theme of the novel.

Mathematics Transitional Course (units to be renamed) **—**

Unit/Module 1: Number & Operations

This unit focuses on strengthening students' understanding of basic numerical operations and manipulations. Students examine the four basic math operations typically used on numerical values and expressions, number sets closed under specific operations, and multiple representations of equivalent expressions. The unit utilizes an approach that students will find unique and potentially entertaining while facilitating this mathematical growth.

Unit/Module 2: Equations

The equations unit takes a nontraditional, active-learning-based approach to reviewing fundamentals of solving one-, two- and multi-step equations, and other mathematical structures that arise naturally from such equations. Topics include linear equations, linear equations that include absolute values, linear inequalities, and linear inequalities that include absolute values. Emphasis is placed on understanding the structure of such problems, with attention given to application of the techniques to real-life problems.

Unit/Module 3: Measurement

This unit deals with unit conversions, using proportions for scaling, and area and volume. This unit requires higher-order thinking and number sense in order to get to the true intent of the standards covered. This unit is useful in helping students make connections with math and science or other subjects.

Unit/Module 4: Linear

This unit takes students back to the foundation of all high school mathematics — an in-depth study of linear functions. Along with allowing students to differentiate between relations that are functions and those that are not, the units helps students examine characteristics of linear functions, specifically. By looking closely at linear functions in multiple forms, students are expected to graph and write equations as well as interpret the meaning in context of the slope and y-intercept. Students conclude with a project allowing them to collect their own data and write a line of best fit from that data.

Unit/Module 5: Systems

This unit deals with solving systems of linear equations. This involves helping students to classify solutions (one, none, or infinitely many), as well as set up and solve problems using systems of equations. This unit also asks students to choose the best way to solve a system of equations and be able to explain their solutions.

Unit/Module 6: Quadratics

This unit is an expansive look at quadratic functions: their graphs, tables and algebraic functions. It stresses multiple approaches to graphing, solving and understanding quadratics, as students explore, make conjectures and draw conclusions in group work settings. Students explore and learn from multiple applications of quadratics in this unit. The unit assumes students have seen quadratics before but may not have a concrete, transferrable understanding of quadratic functions. The unit does not cover algebraic manipulations (multiplying and factoring), as these are in earlier units.

Unit/Module 7: Exponentials

This unit develops students' fluency in exponential functions through varying real-life financial applications/inquiries. This module builds student understanding of these higher-

level functions and also gives them the opportunity to reflect upon the ramifications of their future financial choices.

Unit/Module 8: Statistics

This unit takes a nontraditional, active-learning-based approach to presenting fundamentals of probability and statistics. Ultimately, the primary emphasis is on linear regression, and more generally fitting equations to data. Simple probability topics are included to support the understanding of regression, and some attention is given to normal distributions. Almost exclusively, the topics are taught in the context of small group activities, followed by both group and individual reflection.

Timeline

SREB plans to begin piloting in certain sites as early as August 1, 2013, while other sites may not begin until January 2014. Each site will participate in monthly webinars with SREB staff and/or consultants to discuss progress and challenges and to address questions about the curriculum, delivery, evaluation or logistics. Teachers will be expected to keep a notebook of ideas and feedback during the pilot. Intermittently, teachers and principals will need to record a short evaluation either orally during the webinars, or emailed to SREB staff and consultants. Upon the completion of the pilot, each site will be expected to complete a formal evaluation and survey of the pilot and the curriculum, providing important feedback to SREB on delivery modes, teacher training, curriculum, etc. SREB also would like teachers to conduct a survey of participating students.

By the end of the school year (May 2014), all pilot-testing will conclude and final, formal evaluations of each site's experience will need to be electronically submitted to SREB by participating teachers and principals. The current SREB grant ends June 2014. SREB is already working to set up a new grant to start next summer to make further revisions to the courses based on these pilots, to build more comprehensive professional development resources for these courses a formal, external evaluation of the effectiveness of these courses, and other priorities. Future grant plans will be communicated with all participating project states.

We look forward to working with your state-selected schools over the coming months.

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